

**SECTION VIII
OTHER ACTIVITIES
FIVE-YEAR NPS IMPLEMENTATION PLAN
July 2003 through June 2008**

Some activities that will be taking place in California address NPS pollution sources do not conform to the descriptions of the six basic Land Use Categories. These activities are listed in this Section, and include activities related to abandoned mines, marine native plant restoration and marine invasive species eradication.

A. ABANDONED MINE ISSUES OF CONCERN

EPA and NOAA did not specify MMs for abandoned mines, however abandoned mine drainage and runoff are significant sources of pollution to waters in California, and must be addressed. The SWRCB is the lead agency for control of water pollution by any source, including abandoned mines. However, there is no specific, comprehensive program at either a State or federal level for cleaning up abandoned and inactive non-coal mines. Rather, abandoned and inactive mine remediation, when carried out at all, falls under a variety of State and federal programs. A few mine remediations have been carried out under the federal Superfund Program which addresses only the most extreme pollution sites, such as Iron Mountain Mine. Federal land management agencies have specific, marginally funded programs for cleaning up abandoned mines on federal land but most projects address safety hazards rather than water quality. Abandoned mine clean ups have been pursued as enforcement actions under California's Title 27 Program which regulates discharges of wastes to land. Enforcement actions, however, are costly in terms of state resources and haven't been effective because responsible parties are difficult to locate and current property owners either do not have, or will not spend money, to clean up their sites.

In the near future, abandoned mine remediation may be accomplished by counties and other local entities that work in partnership with federal agencies. Local entity efforts may be supported by grants from State bond proposals. As yet, however, this potential partnership remains untested.

The remnants of mining activity that took place since 1849 left California with literally tens of thousands of small, abandoned "hardrock" mines. Although not significant polluters individually, they often contribute cumulatively to chronic toxicity in affected watersheds via metals loading. Similarly, abandoned hydraulic placer gold mines and abandoned aggregate mines degrade aquatic habitat via excessive sediment loading. The most serious sites are usually addressed directly through the issuance of WDRs. However, the cumulative effects of smaller sites are not yet documented.

A 1980's gold rush resulted in the appearance of "new" abandoned mines. These mines were permitted under state programs but, for a variety of reasons, they still degrade or threaten to degrade waters of the state. The companies that owned these sites have been dissolved and the owners are not possible to locate.

The main barriers to a state level, comprehensive program for cleaning up abandoned mines are liability and funding. Under the federal CWA, a third party can sue an agency or private party that performs abatement work at an abandoned mine if the discharge from the mine continues to violate the CWA. California recently passed legislation that provided protection for "Good Samaritan" cleanups under State law. Efforts over the last few years to amend federal law to provide similar protection; however, have failed thus far. Thus, liability is a major barrier to a comprehensive program for cleaning up abandoned mines. Additionally, there remains the problem of funding. Federal land management agency programs for cleaning up abandoned mines are hamstrung by lack

of funding, more so than liability.

B. MARINE NATIVE PLANT RESTORATION

There is one activity listed under this Section – Kelp restoration work at sites located along the Malibu coastline to the Santa Monica Bay, to return kelp populations to where they once existed.

C. MARINE INVASIVE SPECIES CONTROL

There is one activity listed under this Section – *Caulerpa taxifolia* eradication and prevention.

D. ABANDONED MINES AND THEIR RELATION TO OTHER SWRCB PROGRAMS

1. Waste Discharge Requirements

RWQCBs have issued WDRs to property owners of abandoned mines. However, the current regulatory scheme implicitly assumes that the permitted activity is revenue generating and thus, permit compliance is a business cost. This is not the case for abandoned mines and thus, property owners often cannot or will not comply with permit conditions. Moreover, most current property owners neither owned, nor operated the now abandoned mines which were in production during years prior to the CWC. Although issuing WDRs is an important step in establishing a record of attempted enforcement, enforcement efforts against private property owners have been largely futile.

2. NPDES Permits

RWQCBs have also issued NPDES permits to property owners of abandoned mines. Progress has been made at sites where the NPDES permit holder has been a state agency or corporation. However, for the same reasons stated above, private property owners often do not comply with their NPDES permit conditions.

3. Impaired 303(d) Lists and TMDLs

Under Section 303(d) of the Clean Water Act, California is required to compile a list of impaired waters that fail to meet applicable water quality standards or that cannot support their designed beneficial uses. This list, called a '303(d)' list is submitted to Congress every two years, and California is required to develop a Total Maximum Daily Load (TMDL) for each pollutant causing impairment to the water bodies that are listed. The 2002 303(d) list contains 103 (15%) water bodies that are listed under the category "resource extraction". This number includes water bodies impaired from abandoned mine runoff.

E. ACTIVITY SUMMARY

The activities that are being pursued by State Agencies for the period from July 2003 through June 2008 specifically addressing problems associated with Abandoned Mines are listed in Table VIII, below. In addition, activities being pursued by RWQCBs related to marine native plant restoration and marine invasive species eradication are listed.

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Other

Management Measure: N/A To Be Determined

Process Element	Activity Name	Activity Objective and Description	Agency	Location	Success Criteria	Schedule
Pre-Implementation 10.022	Delta Mercury TMDL	<p>Objective: Reduce mercury in the delta.</p> <p>Description: TMDL is scheduled to be completed by 2003. The Basin Plan Amendment is scheduled to go to the Board in 2004. Implementation is scheduled to start in 2006. More information at: http://www.swrcb.ca.gov/~rwqcb5/programs/tmdl/deltahg.html</p>	RWQCB-5S	Delta	Completed TMDL and Basin Plan Amendment.	7/1/03 to 6/30/08
Pre-Implementation 10.024	Harley Gulch TMDL	<p>Objective: Reduce mercury in Harley Gulch.</p> <p>Description: TMDL scheduled to be completed in 2003. Basin Plan Amendment scheduled to go to the Board in 2004. Implementation scheduled to begin in 2006. More information at: http://www.swrcb.ca.gov/~rwqcb5/programs/tmdl/harley_gulch/index.html</p>	RWQCB-5S	Lake County	Completed TMDL and Basin Plan Amendment.	7/1/03 to 6/30/08
Pre-Implementation 10.025	Sulphur Creek TMDL	<p>Objective: Reduce mercury in Sulphur Creek.</p> <p>Description: TMDL scheduled to be completed in 2003. Basin Plan Amendment scheduled to go to the Board in 2004. Implementation scheduled to begin in 2006. More information at: http://www.swrcb.ca.gov/~rwqcb5/programs/tmdl/sulphur_creek/index.html</p>	RWQCB-5S	Colusa County	TMDL and Basin Plan Amendment	7/1/03 to 6/30/08

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Pre-Implementation 10.026	Bear Creek TMDL	Objective: Reduce mercury in Bear Creek. Description: TMDL scheduled to be completed in 2004. Basin Plan Amendment scheduled to go to the Board in 2005. Implementation scheduled to begin in 2007. More information at: http://www.swrcb.ca.gov/~rwqcb5/programs/tmdl/bear_creek/index.html	RWQCB-5S	Colusa County	TMDL and Basin Plan Amendment	7/1/03 to 6/30/08
Pre-Implementation 10.027	Sacramento River TMDL	Objective: Reduce mercury in the Sacramento River Description: TMDL scheduled to be completed in 2006. Basin Plan Amendment scheduled to go to the Board in 2007. Implementation scheduled to begin in 2008.	RWQCB-5S	Regionwide RB5	TMDL and Basin Plan Amendment	7/1/03 to 6/30/08
Pre-Implementation 10.084	Restoring Deer Creek	Objective: Restore Deer Creek impairment from historic gold mining Description: Restoring Deer Creek builds on the existing effort with three major components: 1) understanding the river and connecting river monitoring to land management issues; 2) reducing point and non-point source inputs to the stream; and 3) restoring targeted river reaches.	RWQCB-5S	Yuba River Watershed	Restored creek	7/1/03 to 6/30/08
Pre-Implementation 11.33	Bodie Creek TMDL	Objective: Bodie Creek watershed restoration through the TMDL program Description: Complete and implement the TMDL	RWQCB-6	Mono County	completed TMDL	1/1/02 to 1/1/05

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Pre-Implementation 11.66	Abandoned Mine Survey	<p>Objective: Assess acid mine impacts in Alpine County</p> <p>Description: survey and sample. Survey each mine for AMD impacts, obtain water quality samples where indications of AMD are present. Collaborate with the USFS to share results.</p>	RWQCB-6	Alpine County	Water quality improvement in East Fork Carson River	7/1/03 to 6/30/08
Pre-Implementation 2.600	Zaca Mine	<p>Objective: Affect a clean up of acid mine drainage, remove potentially toxic mine waste from monitor creek, and reduce toxic sediment erosion rates at the Zaca Mine and other small mines in the vicinity.</p> <p>Description: Region 6 staff are working with USF staff on assessing the scope of pollution at the sites and evaluating potential remedies for specific pollution issues. SWRCB staff provides technical support to regional board staff in areas of review, site characterization, and mine entry. Cleanup work will be performed by the USF as a non-time critical CERCLA action.</p>	SWRCB	Sierra Nevada, Alpine County	End or reduce to minimal levels, acid discharge to Monitor Creek. Reduce sediment discharge from mine sites.	7/1/03 to 6/30/08
Pre-Implementation 2.603	Pioneer Pit and Gardners Point Mines	<p>Objective: Assist in forming and participate in a local/state/federal team to address sediment and metal loading from these recently abandoned gold mines.</p> <p>Description: Participants have met and agreed to: pursue recovery of any reclamation bond funds, establish a record of non-compliance with state regulatory programs, update the approved reclamation plan, and recommend that the DA prosecute the owner operator. My role is that of an agency contact, technical consultant.</p>	SWRCB	Northern Sierra Nevada	Reduced loadings	7/1/03 to 6/30/08

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Pre-Implementation 2.604	Brush Creek Mine	Objective: To bring the recently abandoned mine into compliance with all pending permits, orders, and it's reclamation plan Description: Compile a permit list, determine if the reclamation bond for the site exists. My role is that of an agency contact.	SWRCB	Northern Sierra Nevada	Compliance with reclamation plan	7/1/03 to 6/30/08
Pre-Implementation 2.605	Mclaughlin Mine	Objective: Open the McLaughlin Mine reclamation plan for modification Description: Because closure conditions have changed from those anticipated when the plan was approved. Provide technical consultation for review of current site conditions with DOC and Regional Board staff to determine if reclamation goals need recasting in light of current conditions.	SWRCB	Napa County	Overview of site environmental liabilities	7/1/03 to 6/30/08
Pre-Implementation 2.607	Bear River Mercury Study	Objective: Document the factors that control mercury methylation within the foodweb of Camp Far West Reservoir on the Bear River Description: Serve as contract manager for a study of the reservoir's food web, sediment, and water quality to determine what factors (e.g., temperature, nutrients, etc) cause mercury methylation. Study is an outgrowth of an earlier Bear River Mercury loading study completed by the USGS that resulted in a fish consumption advisory for Camp Far West Reservoir.	SWRCB	Nevada County	An understanding of causes of mercury methylation in an aquatic environment.	7/1/03 to 6/30/08
Pre-Implementation 2.610	Sierra Trinity mercury group	Objective: Promote watershed characterization and abatement of damage caused by mining on federal land (mercury) Description: Corridinated interagency effort to characterize watersheds on federal land degraded by mining. Pilot clean up projects are in the planning state.	SWRCB	Trinity River and Sierra Nevada Watersheds	Watershed characterized and sites cleaned up.	7/1/03 to 6/30/08

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Pre-Implementation 2.613	Pollution trading effort	<p>Objective: Define an equitable pollution trading scheme for mercury from the discharge of the Sacramento County Regional Sanitation District facility</p> <p>Description: Work as part of a state and regional board team to determine what, from the agency's point of view in the context of an NPDES permit, would constitute a fair pollution trade of upstream, point and non-point mercury sources. The district is facing a costly upgrade of their facility to meet pending mercury discharge limits. They would prefer not to have to make those upgrades for what they perceive as little benefit at great cost. Hence, they are sponsoring an effort to develop an equitable trade which would involve cleaning up sources upstream of their facility that are identified as damaging to the aquatic system. Some of these remedies are likely to focus on nonpoint source discharges from urban areas.</p>	SWRCB	Sacramento River Watershed	Finalized Agreement	7/1/03 to 6/30/08
Pre-Implementation 27.003	California Abandoned Mine Lands Task Force	<p>Objective: Convene a statewide discussion group to discuss and make recommendations on technical and legal issues that inhibit effective abandoned mine remediation</p> <p>Description: Discussion of abandoned mine remediation issues, with participation by other state and federal agencies. Develop recommendations on issues affecting abandoned mine reclamation.</p>	DOC	Sacramento	Effective participation and recommendations	1/1/03 to 6/30/08
Pre-Implementation 27.004	Abandoned Mine Inventory Work	<p>Objective: Develop an abandoned mine inventory that is assessed and ranked by priority of hazard.</p> <p>Description: Field inventory work and database management.</p>	DOC	Statewide	Completion of inventory work in priority watersheds.	7/1/03 to 6/30/08

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Pre-Implementation 4.088	TMDL for Mercury, Tomales Bay	Objective: Develop TMDL for mercury Description: Develop TMDL for mercury, address sediment pollutant issues and fish contamination in Tomales Bay	RWQCB-2	Marin County	Reports and BP amendment	7/1/05 to 2/28/07
Pre-Implementation 8.0010	San Carlos Creek Mercury TMDL	Objective: Begin mercury TMDL development in 2004 Description: Begin mercury TMDL development in 2004. Basin Plan amendment will be during the next 5 year plan	RWQCB-5F	San Carlos Creek	TMDL stakeholder group formation and monitoring	7/1/03 to 6/30/08
Pre-Implementation 8.007	Panoche Creek Mercury TMDL	Objective: Begin mercury TMDL development Description: Mercury TMDL development to begin 2004. Basin Plan amendment will be during next 5 year plan.	RWQCB-5F	Panoche Creek	TMDL stakeholder group development and monitoring	7/1/03 to 6/30/08
Implement 10.004	SRWP Delta Tributaries Mercury Council	Objective: Implement the Delta Tributaries Mercury Council strategic plan. Description: Assist in identifying and obtaining resources to implement the plan.	RWQCB-5S	Sacramento River Watershed	Resources are acquired for implementation	7/1/03 to 6/30/08
Implement 10.021	Clear Lake Mercury TMDL	Objective: Reduce mercury levels in Clear Lake. Description: Implement the mercury TMDL for Clear Lake. More information at: http://www.swrcb.ca.gov/~rwqcb5/programs/tmdl/clearlake.html	RWQCB-5S	Lake County	Implementation plan	7/1/03 to 6/30/08

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Implement 10.087	Abandoned Mine Reclamation and Restoration	Objective: Reduce impacts of abandoned mines, restore ecological health and improve water quality in the north Yuba Watershed. Description: Eight individual sites are impacted by previous historic mining activities. Project implementation involves removal of structures, abandoned equipment and materials (including hazardous materials), recontouring disturbed landscapes, stabilizing stream banks, and revegetating the sites. Access roads will be decommissioned and revegetated where appropriate. Where necessary, individual site characterization studies will be conducted to determine the extent of toxic discharge from mine openings and to prescribe the appropriate alternative for remediation.	RWQCB-5S	Yuba River watershed	Implementation of BMPs.	7/1/03 to 6/30/08
Implement 11.60	Colorado Hill Mining District Oversight	Objective: Meet water quality standards in Monitor Creek and E. Fork Carson River Description: stop acid mine discharges to Monitor Creek and stabilize/remove tailings in creek	RWQCB-6	Alpine County	implement remedial actions	7/1/03 to 6/30/08
Implement 16.001	Caulerpa taxifolia (CT) eradication and prevention	Objective: This action includes efforts to find, eradicate, and prevent infestations of Ct, including work in support of such efforts. Description: 1: Eradicate known infestations of Ct, 2. Find and eradicate any other existing infestations of Ct, 3. Prevent new infestations of Ct.' 4. Find and eradicate any new infestations of Ct.	RWQCB-9	California coast	Eradication of Ct	7/1/03 to 6/30/08

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Implement 19.005	Reforestation of Hydraulically-Mined Areas in Nevada County	Objective: Reforest hydraulically-mined areas using recycled organic materials as a growing substrate for native vegetation. Description: Utilize biosolids/compost blend to reforest hydraulically-mined areas to reduce erosion of contaminated soils into local watersheds.	CIWMB	Nevada County	Reduction in contaminated runoff from hydraulically-mined areas and regeneration of native plant species in disturbed soils.	12/1/02 to 12/1/05
Implement 2.601	Clear Creek streambed habitat restoration	Objective: Restore streambed habitat using dredge tailings from historic goldmining located within the floodplain. Description: Provide technical consultation to determine and implement methods to minimize mercury release from the dredger tailing prior to the use to make up a sediment deficiency. Since the restoration project was ongoing when the mercury issue became known, the remedial action was added as an additional task.	SWRCB	Central Valley, Redding area	Removal of mercury containing fine fraction of the tailings by washing.	7/1/03 to 6/30/08
Implement 2.602	East Shasta and West Shasta abandoned mines	Objective: Reduce acid and metal loading to West Squaw Creek, Little Backbone Creek, and Town Creek which all flow into Shasta Lake and have cause fish kills Description: Reduction of acid loads by diverting stream around mined areas, local capping and mine sealing, and removing acid generating mine waste. My role is as an occasional technical consultant.	SWRCB	Shasta Lake	No fish kills in Shasta Lake from tributaries	7/1/03 to 6/30/08
Implement 27.002	Physical Hazard Remediation on AML Sites	Objective: Mitigate physical hazards at abandoned mine sites Description: Install bat gates, backfill, PUF close, fence, and otherwise remediate physical hazards at AML sites.	DOC	Statewide	Mitigated hazards	9/5/02 to 6/30/08

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Implement 6.074	Res. No. 02-007 SEP List SMBK - Kelp Restoration Project	Objective: The program's objectives are to: expand the BayKeeper's kelp restoration work to three additional sites along the Malibu coastline to the Santa Monica Bay. Description: Kelp restoration activities will consist of: 1. returning kelp populations to where they once existed; 2. transplanting fertile drift kelp to act as a natural spore source to the area; 3. selecting three restoration sites based on historical kelp coverage to date; and 4. monitoring of the sites during all phases of restoration.	RWQCB-4	Santa Monica	Kelp restoration in targeted sites	7/1/03 to 6/30/08
Track/Monitor 27.007	Monitoring Spenceville Mine Restoration and Closure	Objective: Design, complete and monitor reclamation of Spenceville Mine. Description: Assist DFG in the development, implementation and monitoring of reclamation of acid mine drainage. Complete mined land reclamation to second use; Monitor stream restoration for elimination of Acid Mine Drainage (AMD).	DOC	Nevada County	Mine closure and restoration	1/1/90 to 4/1/07
Report 2.612	Delta Tributaries Mercury Committee	Objective: Promote a sound strategy for dealing with mercury in aquatic systems Description: The committee grew out of the Cache Creek watershed initiative which began in the mid- 1990's as mercury is a prime concern in the watershed but affects downstream areas as well. Develop a report which lays out a strategy for evaluating mercury in aquatic systems.	SWRCB	West Sacramento Valley	Finished report	7/1/03 to 6/30/08